UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/643,473	08/22/2000	Robert Cahn	1999-0414	8446

7590 01/10/2005	EXAMINER
Mr S H Dworetsky	LIN, KENNY S
AT&T Corp	

ART UNIT	PAPER NUMBER
2154	

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DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/643,473	CAHN, ROBERT
		Examiner	Art Unit	
		Kenny Lin	2154	

-- Th MAILING DATE of this communication app ars on th cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2004*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-8* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-8 are presented for examination.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callon,

US 6,256,295, in view of "Official Notice".

4.   As per claims 1 and 5, Callon taught the invention substantially as claimed including a

method for monitoring the status of a network, comprising:

   a.   Computing a plurality of measures of network health (col.2, lines 46-60),

        including unrouted traffic (col.3, lines 1-4, col.5, lines 24-25), traffic whose cost

        exceeds a prescribed multiple of an optimal route cost (col.3, lines 1-4, 58-67,

        col.5, lines 11-20), and traffic off an optimal path (col.3, lines 1-4, col.5, lines 3-

        11) and

   b.   Comparing said measures of network health to a threshold values and selecting a

        restoration route from a plurality of stored restoration routes (col.4, lines 13-19,

        col.5, lines 3-20).

5.   Specifically, as per claim 5, Callon further taught to comprise a database storing possible

restoration routes and to select a restoration route from a plurality of stored restoration routes

(col.4, lines 13-19, col.5, lines 3-20). Callon did not specifically teach to measure a sum of

unrouted traffic, a sum of traffic whose cost exceeds a prescribed multiple of an optimal route

cost and a sum of traffic off an optimal path. Official Notice is taken that it would have been

obvious to calculate a sum of each category of the determined traffic by simply adding each

indication. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to include the calculation of summing the detected unrouted traffic, traffic whose cost

exceeds a prescribed multiple of an optimal route cost and traffic that are off an optimal path in

Callon's method in order to determine the total number of traffic of each detection.

6.   Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callon as

applied to claims 1 and 5 above, and further in view of Bentall et al (hereinafter Bentall), US

6,282,170.

7.   Bentall was cited in the previous office action.

8.   As per claims 2 and 6, Callon taught the invention substantially as claimed in claims 1

and 5. Callon did not specifically teach to restore circuits at a rate parameterized by a value P

and observe the behavior of the network; and increase the value P in the network to decrease the

time customers experience unrouted traffic. Bentall taught a route restoration method that the

speed for restoring circuits can be adjusted (col.3, lines 37-41, col.4, lines 29-34). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to combine the

teachings of Callon and Bentall because Bentall's teaching of adjusting the rate of route

restoration help to speed up or slow down the restoration process in Callon's method according

to the available capacity (col.2, lines 29-34).

9.   Claims 3-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Callon as applied to claims 1 and 5 above, and further in view of Srinivasan et al (hereinafter

Srinivasan), US 6,304,549.

10.   As per claims 3 and 7, Callon taught the invention substantially as claimed in claims 1

and 5. Callon did not specifically teach to monitor said measures to sense when bandwidth

needs to be added to the network. Srinivasan taught to monitor said measures to sense when

bandwidth needs to be added to the network (col.15, lines 55-64). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to combine the teachings of

Callon and Srinivasan because Srinivasan's teaching of adjust bandwidth helps Callon's method

to increase or decrease bandwidth according to the needs.

11.   As per claims 4 and 8, Callon taught the invention substantially as claimed in claims 1

and 5. Callon further taught to compute said plurality of measures of network health to identify

unrouted, off optimal and seriously misrouted traffic (col.2, lines 46-60, col.3, lines 1-4, 58-67,

col.5, lines 3-20, 24-25).

12.   Callon did not specifically teach to derate each edge of the network to have capacity of a

predetermined fraction of real capacity; and to determine if the measures are over a specified

value and if so, then adding capacity to the network. Srinivasan taught to derate each edge of the

network to have capacity of predetermined fraction of real capacity (col. 15, lines 43-50, reduce

the allocated bandwidth where the allocated bandwidth is the real capacity); and to determine if

the measures are over a specified value and if so, then adding capacity to the network (col. 15,

lines 55-58). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of Callon and Srinivasan because Srinivasan's

teaching of adjust bandwidth capacity helps Callon's method to increase or decrease bandwidth

according to a value of a predetermined method.

Response to Arguments

13.   Applicant's arguments filed 8/30/2004 have been fully considered but they are not

persuasive.

14.   In the remark, applicant argued that: (1) Callon does not disclose the claimed limitations

of claim 1 and 5. (2) Bentall fails to provide the mission disclosure of restoring circuits by a

particular rate and increasing the rate. (3) Lowering the assigned bandwidth is not the same as

"derating each edge of the network to have capacity of a predetermined fraction of real

capacity."

15.   Examiner traverse the argument that:

As to point (1), Callon taught to monitor the status of a network by computing a plurality of measures of network health (col.2, lines 46-60; e.g. methods and computations for determining multiple non-overlapping or minimally-overlapping path are described). In order to perform determination, monitoring of the network health is required, thus, determination step incorporates monitoring of the network. Callon further taught the computation of the network health including computation of unrouted traffic (col.3, lines 1-4, col.5, lines 24-25; e.g. unreachable traffic path including PVC; determining which paths are unreachable), traffic whose cost exceeds a prescribed multiple of an optimal route cost (col.3, lines 1-4, 58-67, col.5, lines 11-20; computing the total cost of a path and determine it with a distinct cost of another path), and traffic off an optimal path (col.3, lines 1-4, col.5, lines 3-20; computing the total cost of a path and determine it with a distinct cost of another path) and comparing said measures of network health to a threshold values and selecting a restoration route from a plurality of stored restoration routes (col.4, lines 13-19, col.5, lines 3-20). Callon did not specifically teach to measure a sum of unrouted traffic, a sum of traffic whose cost exceeds a prescribed multiple of an optimal route cost and a sum of traffic off an optimal path. Official Notice is taken that it would have been obvious to calculate a sum of each category of the determined traffic by simply adding each indication. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the calculation of summing the detected unrouted traffic, traffic whose cost exceeds a prescribed multiple of an optimal route cost and traffic that are off an optimal path in Callon's method in order to determine the total number of traffic of each detection.

In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e., One claimed

measurement is "a sum of unrouted traffic" which is a measure of network traffic which cannot

be routed to its destination. Traffic may be unrouted, for example, if the path between the source

and the destination has failed or if the path between the source and the destination is too

congested to carry the traffic (i.e., the links are saturated). Another claimed measurement is "a

sum of traffic whose cost exceeds a prescribed multiple of an optimal route cost". In one

embodiment, this measure of network health is described in the specification as the computation

of "seriously misrouted traffic" whereby the ratio of cost between the shortest route and the

actual route is determined. In the embodiment described in the application, if the ratio is greater

than 1.5 then the traffic is considered to be seriously misrouted. If the ratio is less than 1.5, then

the traffic is considered to be off the optimal traffic path, which is the another claimed measure

of "a sum of traffic off an optimal path") are not recited in the rejected claim(s). Although the

claims are interpreted in light of the specification, limitations from the specification are not read

into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As to point (2), Bentall taught a route restoration method that the speed for restoring circuits can

be adjusted (col.3, lines 37-41, col.4, lines 29-34). It is known that by adjusting the speed of the

restoring circuits, the rate of the restoring can be controlled. It would have been obvious to one

of ordinary skill in the art at the time the invention was made to combine the teachings of Callon

and Bentall because Bentall's teaching of adjusting the rate of route restoration help to speed up

or slow down the restoration process in Callon's method according to the available capacity

(col.2, lines 29-34). Furthermore, it can be interpreted that the rate parameterized by the value P

is equal to zero since it is not clearly defined in the claim language causing the restoration to restore circuits at a fixed speed.

As per point (3), Lowering the assigned bandwidth reads on the claimed language "derating each edge of the network to have capacity of a predetermined fraction of real capacity" since lowering the bandwidth to a fraction of the whole assigned bandwidth is decreasing the capacity of the edges of the network. Srinivasan taught to derate each edge of the network to have capacity of predetermined fraction of real capacity (col. 15, lines 43-50, reduce the allocated bandwidth where the allocated bandwidth is the real capacity) and to determine if the measures are over a specified value and if so, then adding capacity to the network (col. 15, lines 55-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Callon and Srinivasan because Srinivasan's teaching of adjust bandwidth capacity helps Callon's method to increase or decrease bandwidth according to a value of a predetermined method.

Hence, the rejections, basing on the above interpretations of the claims languages, remain stated. Furthermore, because Applicants have failed to challenge any of the Examiner's "Official Notices" stated in the previous office action in a proper and reasonably manner, they are now considered as admitted prior art. See MPEP 2144.03

Conclusion

16.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

17.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The

examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl
January 5, 2005

JOHN FOLLANSBEE
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